CLAIMS

What is claimed is:

1. A method comprising the steps of:

a) receiving an outgoing audio signal; and

b) coupling the audio signal to a subscriber line through a plurality of transistors coupled in a common base configuration.

2. The method of claim 1 further comprising the step of:

c) receiving linefeed driver control signals for controlling battery feed to the subscriber line, wherein the outgoing audio signal and the linefeed driver control signals are received on the same signal lines.

3. The method of claim 1 wherein the plurality of transistors comprises bipolar junction transistors.

4. The method of claim 1 wherein the plurality of transistors comprises field effect transistors, wherein the common base configuration is a common gate configuration.

5. A method comprising the steps of:

a) receiving linefeed driver control signals and outgoing audio signals on a same plurality of signal lines; and

b) providing the outgoing audio signals to a subscriber line through a common base isolation stage.

6. The method of claim 5 further comprising the step of:

b) controlling a battery feed to a tip node and a ring node of the subscriber line in accordance with the linefeed driver control signals.

7. The method of claim 5 wherein the common base isolation stage comprises a plurality of bipolar junction transistors coupled in a common base configuration.

8. The method of claim 5 wherein the common base isolation stage comprises a plurality of field effect transistors coupled in a common gate configuration.

9. A subscriber line interface circuit apparatus, comprising:

a first circuit for coupling a received outgoing audio signal to a subscriber line, wherein the first circuit couples the received outgoing audio signal to the subscriber line through a common base isolation stage.

10. The apparatus of claim 9 wherein the first circuit comprises a plurality of bipolar junction transistors coupled in a common base configuration.

11. The apparatus of claim 9, wherein the first circuit comprises a plurality of field effect transistors coupled in a common gate configuration.

12. The apparatus of claim 9 wherein the first circuit comprises:

a tip control circuit, wherein the tip control circuit increases a tip node voltage in response to a first tip control signal, wherein the tip control circuit decreases a tip node voltage in response to a second tip control signal; and

a ring control circuit wherein the ring control circuit increases a ring node voltage in response to a first ring control signal, wherein the ring control circuit decreases a ring node voltage in response to a second ring control signal.

13. The linefeed driver of claim 12 wherein the tip control circuit comprises:

a first transistor of a first type having an emitter coupled to receive the first tip control signal;

a second transistor of the first type having an emitter coupled to receive the second tip control signal, wherein a base of each of the first and second transistors is coupled to a first node as a signal ground;

a third transistor of a second type having a collector coupled to a collector of the first transistor and an emitter coupled to a second node;

a resistor having a first end coupled to the second node, a second end of the resistor coupled to a base of the third transistor and a collector of the second transistor.

14. The subscriber line linefeed driver of claim 13 wherein the first type is a PNP bipolar junction transistor, wherein the second type is an NPN bipolar junction transistor.

15. A subscriber line interface circuit apparatus, comprising:

a signal processor providing an outgoing audio signal; and

a linefeed driver coupled to receive the outgoing audio signal, wherein the linefeed driver couples the received outgoing audio signal to a subscriber line through a common base isolation stage.

16. The apparatus of claim 15 wherein the common base isolation stage comprises a plurality of bipolar junction transistors coupled in a common base configuration.

17. The apparatus of claim 15 wherein the common base isolation stage comprises a plurality of field effect transistors coupled in a common gate configuration.

18. The linefeed driver of claim 15 wherein the linefeed driver comprises:

a tip control circuit, wherein the tip control circuit increases a tip node voltage in response to a first tip control signal, wherein the tip control circuit decreases a tip node voltage in response to a second tip control signal; and

a ring control circuit wherein the ring control circuit increases a ring node voltage in response to a first ring control signal, wherein the ring control circuit decreases a ring node

voltage in response to a second ring control signal, wherein the signal processor provides the first and second tip control signals and the first and second ring control signals.

19. The linefeed driver of claim 18 wherein the tip control circuit comprises:

a first transistor of a first type having an emitter coupled to receive the first tip control signal;

a second transistor of the first type having an emitter coupled to receive the second tip control signal, wherein a base of each of the first and second transistors is coupled to a first node as a signal ground;

a third transistor of a second type having a collector coupled to a collector of the first transistor and an emitter coupled to a second node; and

a resistor having a first end coupled to the second node, a second end of the resistor coupled to a base of the third transistor and a collector of the second transistor.

20. The linefeed driver of claim 19 wherein the first type is a PNP bipolar junction transistor, wherein the second type is an NPN bipolar junction transistor.